

## ***Endococcus incrassatus*, a new lichenicolous fungus (Dothideales)**

J. ETAYO

Navarro Villoslada 16-3° dcha.  
E-31003 Pamplona, Spain  
Email jetayosa@pnate.cfnavarra.es

O. BREUSS

Naturhistorisches Museum Wien, Botanische Abteilung  
Burgring 7, Postf. 417  
A-1014 Wien, Austria  
Email obreuss@g9-asn-wien.ac.at

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**Abstract:** *Endococcus incrassatus*, a parasite on the lichen *Placidopsis cinerascens*, is described as new.

**Zusammenfassung:** *Endococcus incrassatus* wird als Parasit auf *Placidopsis cinerascens* neu beschrieben.

*Endococcus* NYL. is a Dothidealean genus of lichenicolous fungi comprising about 15 species occurring mostly on saxicolous crustose lichens. It is characterized by perithecioid ascomata, a hemiamyloid hymenial gel, soon gelatinizing paraphysoids, brown, 1-septate ascospores, and the lichenicolous habit. After the study by HAWKSWORTH (1979), two important contributions dealt with the genus: TRIEBEL (1989) presented a rather broad species concept joining several entities growing on very different hosts, whereas SÉRUSIAUX & al. (1999) adopted a much narrower species concept for *Endococcus* resulting in a larger number of mostly host-specific taxa. As there are significant differences in spore size and several fine aspects of asomatal anatomy between taxa on different hosts, this narrower species concept seems to be more appropriate.

During a collecting trip to Baja California in the course of the Sonoran Desert Lichen Flora project under the leadership of Prof. Dr THOMAS H. NASH (Tempe) in 1997, the second author collected a specimen of *Placidopsis cinerascens* (NYL.) BREUSS that is heavily infested by an *Endococcus* species which is described as new below.

***Endococcus incrassatus* ETAYO & BREUSS, spec. nova (Fig. 1)**

**Diagnosis latina:** Ascomata superficiales in thallo *Placidiopsi cinerascens*, subcylindrica, apicibus irregulariter incrassatis. Ascosporae maturitate uniseptatae, fuscae, laeves, septo lamella media atro-brunnea, multiguttulatae, 10,5-14 x 6-8  $\mu\text{m}$ .

**Typus:** Mexico, Baja California, lower slopes of Cerro los Enjambres ca. 2 km WNW of Laguna Chapala, Vizcaino Region of the Sonoran Desert, 29°23'39"N, 114°23'30"W, 700 m s. m., on *Placidiopsis cinerascens*, 30. 12. 1997, O. BREUSS 14447 (LI, holotype).

**Merkmale:**

Ascomata perithecioid, lichenicolous, dispersed in the thallus of *Placidiopsis cinerascens*, at first immersed, soon superficial, black, non-setose, irregularly subcylindrical, with thickenings in the upper part, 120-200  $\mu\text{m}$  in diameter. Perithecial wall brown, lighter at the base and the inner parts, K+ blackish, apically with irregular thickenings, 20-25  $\mu\text{m}$  thick at the base, 40-60  $\mu\text{m}$  above, paraplectenchymatous, of several rows of tangentially compressed cells 7-11 x 2-3  $\mu\text{m}$ , the inner ones with thin and hyaline walls, the outer ones with thick, dark walls. Periphysoids of two kinds: the lower ones long and septate, thin-walled, 16-22 x 1  $\mu\text{m}$ , the upper ones short, simple, with thicker walls, 7-12 x 2(-4)  $\mu\text{m}$ . Paraphysoids simple, septate, soon disappearing. Hymenial gel I+ orange, KI+ blue. Asci clavate, 50-60 x 8-10  $\mu\text{m}$ , 8-spored, wall distinctly thickened apically. Ascospores ellipsoidal to ovoid, with obtuse (rarely pointed) ends, soon brownish, dark brown when mature, at first non-septate and ornamented with very small granulation, then one-septate and smooth, without a distinct perispore, not or slightly constricted at the septum, cells unequal in size and shape, septum dark brown with a darker median lamella, each cell containing numerous small lipid drops, 10.5-14 x 6-8  $\mu\text{m}$ . Anamorph unknown.

**Notes:**

*Endococcus incrassatus* is well distinguished from other species of the genus by its almost superficial ascomata with irregular thickenings in their ostiolar region, dark brown ascospores with a thick lamella in the septum and in growing on the terricolous squamulose lichen *Placidiopsis cinerascens*.

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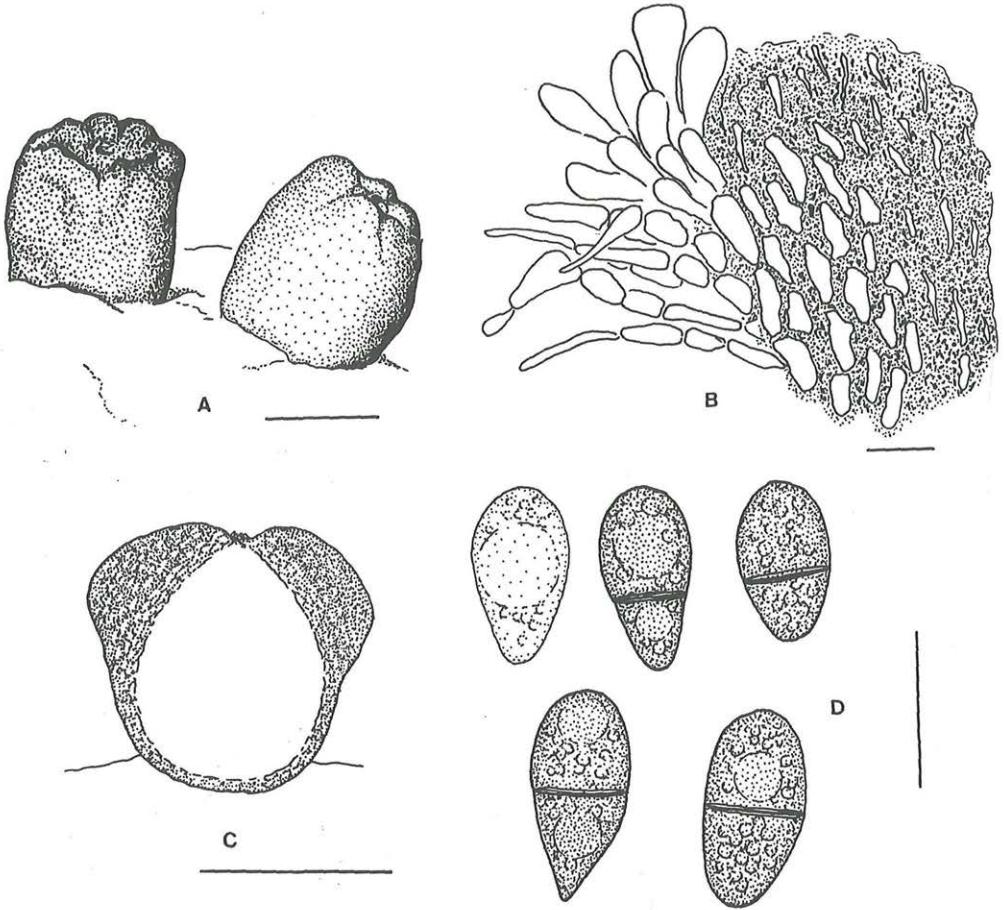


Fig. 1. *Endococcus incrassatus* (holotype). A Ascomata. B Section of apical part of ascomatal wall with periphysoids. C Section of ascoma showing apical thickenings. D Ascospores. – Bars: A = 100  $\mu$ m, B = 5  $\mu$ m, C = 150  $\mu$ m, D = 10  $\mu$ m.

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